

What is claimed is:

1) An intelligent accessory system for identifying a particular electronic device, the system comprising:

- 5 a. a universal base unit having a control circuit, the control circuit having at least one input and at least one output, the universal base unit further comprising a resistor electrically coupled to the at least one input; and
- 10 b. an interface device having both a first connector capable of mechanically and electrically coupling to the universal base unit and a second connector capable of mechanically and electrically coupling to at least one first electronic device, the interface device further comprising a capacitor with a value predetermined to correspond to the at least one first electronic device;

wherein when the interface device is coupled to the universal base unit the capacitor and the resistor are electrically coupled in series;

15 further wherein to identify the at least one first electronic device, the control circuit the control circuit applies a voltage to the capacitor and measures an exponential voltage decay across the resistor.

2) The system of claim 1, further comprising a comparator electrically coupled in series between the resistor and the control circuit.

20 3) The system of claim 2, further comprising a protection circuit disposed within the interface device.

4) The system of claim 3, wherein when the at least one first electronic device is identified, the control circuit configures the universal base unit to accommodate the at least one first electronic device.

25 5) The system of claim 4, wherein the control unit further comprises a means of correlating a predetermined capacitor value to one of a plurality of electronic devices.

- 6) The system of claim 5, wherein the universal base unit further comprises a power conversion circuit.
- 7) The system of claim 6, wherein the power conversion circuit is selected from the group consisting of fly back regulator, a step-down, or “buck”, regulator, a step-up regulator, a buck-boost regulator, and a resonant regulator.
- 8) The device of claim 1, wherein the capacitor is disposed on an integrated circuit semiconductor substrate.
- 9) An apparatus for providing information related to charging a battery in at least a first cellular telephone, comprising:
- a. a first means, separate from the first cellular telephone that has a first battery for powering the first cellular telephone, for providing battery identification for the first battery of the first cellular telephone and in which a first set of battery charging requirements are different from a second set of battery charging requirements of a second battery of a second cellular telephone, the first means including a first capacitor corresponding to the first set of battery charging requirements that are used in charging the first battery of the first cellular telephone; and
 - b. a second means separate from but electrically connectible to the first means in order to be responsive to the first means for using the information related to the first battery charging requirements obtained from the first capacitor, the second means including a processor and in which the first capacitor responds to a voltage input from the processor to indicate the identity of the first cellular telephone when the first means is coupled to the second means;
- wherein, when changing from the second means operating with the first cellular telephone to the second means operating with the second cellular telephone, the first

means including the first capacitor is replaced by another first means including a second capacitor that corresponds to a second set of battery charging requirements of the second battery of the second cellular telephone.

10) A method for charging a first cellular telephone battery that is different from a second cellular telephone battery, comprising:

- a. providing a first means including a first capacitor corresponding to information related to first battery charging requirements for a first battery of the first cellular telephone;
- b. providing a second means including a second capacitor corresponding to information related to second battery charging requirements for a second battery of the second cellular telephone, the second battery charging requirements being different from said first battery charging requirements;
- c. operatively associating the first cellular telephone having the first battery with said first means;
- d. operatively associating the second cellular telephone having the second battery with said second means;
- e. identifying the first cellular telephone by applying a voltage across the first capacitor and sensing an exponential voltage decay with a processor of a third means when the first means is coupled to the third means;

wherein the first means including the first capacitor has the requirement that, when the third means is to operate with the second battery of the second cellular telephone, the first means including the first capacitor is replaced by the second means including the second capacitor.

11) A universal accessory system, the system comprising:

- a. a control circuit;

- b. a resistance means for providing a resistance value, the resistance means comprising two terminals;
- c. an identification capacitor disposed within an interface means capable of being electrically coupled to the resistance means, the capacitor corresponding to at least one electronic device, the capacitor, when coupled to the resistor, having a characteristic time constant related to the first electronic device; and;
- d. the control circuit further comprising:
 - i. means for providing an electrical current;
 - ii. means for periodically measuring the voltage across the resistance means;
 - iii. means for computing the time elapsed during an exponential decay of the voltage across the resistance means; and
 - iv. means for converting the measured stabilizing time to a predetermined identifiable electronic device usage.

12) A method for identifying an electronic device, the method comprising the steps of:

- a. providing a universal base unit having a microprocessor, a resistance means coupled electrically to the microprocessor, the universal base unit further comprising a universal connector;
- b. providing an interface means having a capacitor corresponding to a first electronic device, the interface means further comprising a universal mating connector and a connector of accommodating the first electronic device;
- c. coupling the interface means to the universal base unit;
- d. actuating a voltage across the capacitor;
- e. sensing an exponential voltage decay across the resistor;

- f. calculating a time corresponding to the exponential voltage decay across the resistor;
- g. associating a set of accommodating parameters associated with the first electronic device based upon the time corresponding to the exponential voltage decay across the resistor.

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